

POWER SUPPLY 1-PHASE, 24 V DC DIMENSION C SERIES, MEDICAL APPLICATION

CP10.241-M1
 POWER SUPPLY 24VDC 240W 10A, Medical

- 2MOPP Safety approved IEC 60601-1, 3rd edition
- EMC tested, IEC 60601-1-2, 4th edition
- Output current of 10 A
- Efficiency up to 95.2%



PRODUCT DESCRIPTION

The CP10.241-M1 is a DIN-rail mountable single-phase input power supply for industrial use and for use in medical equipment. It provides a stabilized and galvanically separated SELV/PELV output voltage.

The specialty of this power supply is the 2MOPP (two means of patient protection) safety approval for medical use and the fulfillment of the required EMC tests for professional healthcare facility and home healthcare environments.

The CP-Series is part of the DIMENSION power supply family. The most outstanding features of CP10.241-M1 are the high efficiency, advanced inrush current limitation, active PFC and the wide operational temperature range.

High immunity to transients and power surges as well as low electromagnetic emission, a DC-OK relay contact and a large international approval package for a variety of applications makes this unit suitable for nearly every situation.

TECHNICAL DATA

INPUT DATA

Input voltage range	Wide-range
Input voltage ac	100-240 V
Input voltage ac min	85 V AC
Input voltage dc max	180 V DC
Input voltage dc	110-150 V
Input voltage ac max	264 V AC
Inrush current at 230 V ac typical	9 A
Number of phases	1
Inrush current at 120 V ac typical	6 A
Power factor at 120 V ac, full load. Typical	0,99

Power factor at 230 V ac, full load. Typical	0,97
Input voltage dc min	88 V DC

OUTPUT DATA

Output voltage min	24 V DC
Output voltage	24 V DC
Output voltage max	28 V DC
Power	240 W
Output current	10 A

EFFICIENCY / LIFETIME / MTBF

Lifetime at 120 V ac, full load and +40 ° C	75000 h
MTBF (IEC 61709) 230 V ac, max load, 40 ° C	661000 h
Efficiency at 230 V ac, full load, typical	95,2 %
Efficiency at 230 V ac, typical	94,3 %
Lifetime at 230 V ac, full load and +40 ° C	120000 h
Efficiency at 120 V ac, full load, typical	93,6 %

DIMENSIONS

Weight	0,62 kg
Depth	117 mm
Width	39 mm
Height	124 mm

OTHER

IP class	IP20
Power consumption 120 V ac	2,15 A
Ripple max	50 mV pp
Power drop from +60 °C to + 70 °C	6 W/°C
Clamp type	Spring-clamp
Temperature min without derating	-25 °C
Hold time at 120 V ac, typical full load	37 ms
Series	Dimension C
Hold time at 230 V ac, typical full load	37 ms
Power consumption 230 V ac	1,13 A
Supply frequency	50-60 ±6 %
Approvals	CE, cULus

Temperature max without derating

60 °C

Material protection

Aluminium

Type Power Supply

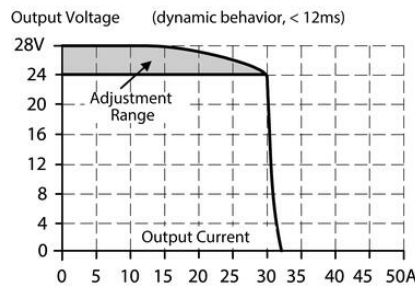
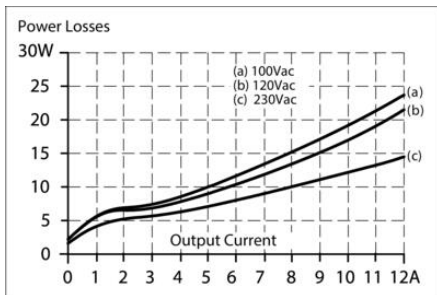
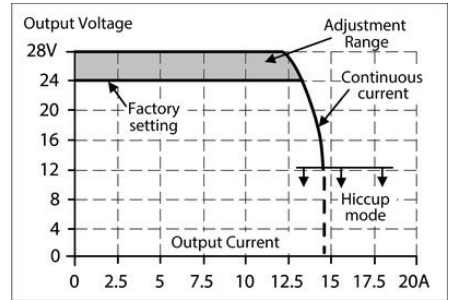
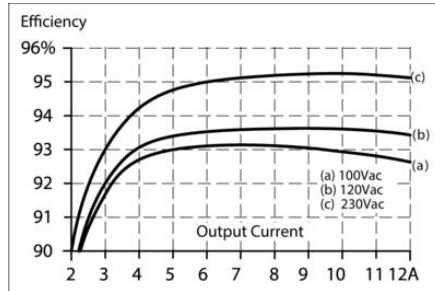
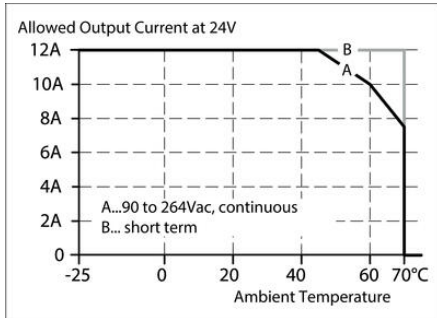
AC-DC

Active Transient

Yes

DC relay output

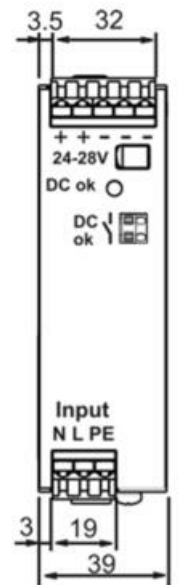
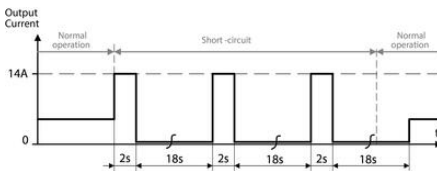
Yes



Maximal wire length^{*)} for a fast (magnetic) tripping:

	0.75mm ²	1.0mm ²	1.5mm ²	2.5mm ²
C-2A	30 m	37 m	54 m	84 m
C-3A	25 m	30 m	46 m	69 m
C-4A	9 m	15 m	25 m	34 m
C-6A	3 m	3 m	4 m	7 m
C-8A				
B-6A	12 m	15 m	21 m	34 m
B-10A	3 m	3 m	4 m	9 m
B-13A	2 m	2 m	3 m	6 m

^{*)} Don't forget to consider twice the distance to the load (or cable length) when calculating the total wire length (+ and - wire).



All dimensions in mm

